ups - Bug # 1923: Dependency changes for ART folks

Status:	Assigned		**Priority:**	High
Author:	Marc Mengel		**Category:**	
Created:	09/26/2011		**Assigned to:**	Marc Mengel
Updated:	10/05/2011		**Due date:**	
Subject:	Dependency changes for ART folks			
Description:	They want an option with two parts			
	# with this option set, rather than unsetup a currently setup package, we complain if			
	it is setup and not the version we are going to setup			
	# with this option set, we conflicts in versions in dependencies are errors, not overriden			
	by the higher-level package's version.			

History

09/26/2011 11:30 am - Marc Mengel

So the easy part is in upsact_trim_unsetup source:/src/upsact.c#L755 which

currently looks to see what's setup to figure out what to unsetup...

Need to browse the code some more to find the dependency pick-the-highest-one code...

09/26/2011 12:55 pm - Marc Mengel

So currently, ups does its product setup matching using two lists in @next_cmd()@ in

source:src/upsact.c#L1333 using two variables: @top_list@ (argument) and @g_prod_done@,

where the former is a list of products listed at the top level of the setup (which always

win) and the latter is a list of product names we've setup so far.

The problem is that the @g_prod_done@ list only lists the names of the products that are setup so far; not their version, qualifiers etc. So it looks like

we will need to change it to a list of @ups_ugo@ structures which give the setup options of those products, and if a product is already setup, use that

list to check for the mismatch. so then
<pre>
 g_prod_done = upslst_add(g_prod_done, p_act_itm->ugo->ugo_product);
</pre>
becomes
<pre>
 g_prod_done = upslst_add(g_prod_done, p_act_itm->ugo);
</pre>
and when we check the list for matching product names, in @is_prod_done@ we use

@((t-upsugo_command*)l_ptr->data)->ugo_product@ to look at the list...

We can test that change, and then try adding some code to check for clashes if

the product is "already done".

09/26/2011 01:13 pm - Marc Mengel

I'm looking at the list of options, it seems @-B@ is available, which sort of fits

for this, as in "Breakproof mode" (or possibly "Bondage and Discipline Dependency mode" :-))

One could specify it on a setup (or in UPS_OVERRIDE in the environment?)

09/26/2011 01:25 pm - Christopher Green

I'm assuming UPS_OVERRIDE is the environment variable you mentioned Friday but weren't exactly sure of the name?

09/26/2011 01:28 pm - Christopher Green

@-B@ would be fine, but if ups is set up for it I'd be just as happy with a long option only, eg @--strict-dependency-versions@. Possibly happier, since it doesn't entail trying to come up with and remember a tortured backronym.

Thanks,
Chris.

09/26/2011 02:26 pm - Marc Mengel

(Chris, ups doesn't currently support any --long options...)

Just checked in a revision that, if given @-B@ on the command line, gives a
(wrong) error if there is a version clash in the dependencies on ups depend.

Still need to
[ ] test with setup as well as depend
[ ] make a proper error message for this case
[ ] add the unsetup/resetup behavior
[ ] add UPS_OVERRIDE code for -B

10/04/2011 01:18 pm - Marc Mengel

Okay so my last analysis of part one was hosey...

It looks like we can get the currently setup verision, etc of product pname
by calling:
 t_upsugo_command *setup_ugo_cmd = 0;
 ...
 setup_ugo_cmd = upsugo_env(pname, g_cmd_info[e_unsetup].valid_opts);

The unsetup checks that are there just look to see if *any* version of X is setup, and generates the unsetup for it, regardless if it matches.

What we want, is if a version of X is setup that doesn't match the version we have,
we fail, and if the version we want *is* setup, we don't bother setting it up again. That means we need to pass in the version and qualifiers and check them; or just check the setup version as we go...

10/04/2011 02:37 pm - Marc Mengel

I committed a version into cvs which now appears to do both the checks for:

* checking for conflicts betweeen branches of the dependency tree
* checking for conflicts between what's setup already and the product being setup

Still need to
* put in support for setting this in UPS_OVERRIDE
* do we want it to fail the toplevel product being setup as well, if it
  conflicts with what is setup (i.e. they *have* to use unsetup first).

Still need to check carefully , and hopefully add some test cases..

10/04/2011 02:45 pm - Marc Mengel

- % Done changed from 0 to 70

You can review the net change so far at in the "repository":https://cdcvs.fnal.gov/redmine/projects/ups/repository/diff/src/upsact.c?rev=2705&rev_to=2633 to see the main code updates.

10/05/2011 10:56 am - Marc Mengel

- % Done changed from 70 to 80